STATE OF CALIFORNIA
FISH AND GAME COMMISSION
INITIAL STATEMENT OF REASONS FOR REGULATORY ACTION
(Pre-publication of Notice Statement)

Amend Sections 27.82(a) and 630
and
Adopt Section 632
Title 14, California Code of Regulations
Re: Marine Protected Areas

I. Date of Initial Statement of Reasons: January 9, 2002

II. Dates and Locations of Scheduled Hearings

(a) Notice Hearing:
Date: August 24, 2001
Location: Santa Barbara, California

(b) Discussion Hearings:
Date: February 8, 2002
Location: Sacramento, California

Date: March 7, 2002
Location: San Diego, California

Date: April 4, 2002
Location: Long Beach, California

(c) Adoption Hearing:
Date: August 2, 2002
Location: San Luis Obispo, California

III. Description of Regulatory Action:

(a) Statement of Specific Purpose of Regulation Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary:

California's population has increased from about 7 million people in the 1940's to 20 million in 1970 and 35 million today. Eighty percent of this population lives within 50 miles of the coast. Human population increases have led to not only higher demands on natural resources, but larger impacts through runoff, pollution, and habitat alteration.

Increases in California's human population have coincided with shifts in recreational and commercial fishing activity, growth in consumer demand for live fish, and innovations in fishing gear and technology. In recent years, landings and value of live finfish in California have shown a twenty-

fold increase. Landings of live finfish increased from less than 50,000 pounds with a value of $100,000 in 1993 to more than 1 million pounds with a value of nearly $4 million in 2001.

At the same time, warm water oceanic conditions and disease have led to poor reproduction and recruitment of many marine species. This combination of increased use, poor conditions and disease have contributed to declines in marine resources. Popular finfish species like bocaccio, canary, widow, and cowcod rockfishes, Pacific ocean perch, and lingcod are federally listed as overfished, meaning their populations are below 25% of their unfished levels. Abalone, a once important commercial and recreational species group, are now the subject of a moratorium in California south of San Francisco and one species, white abalone, has become the first marine invertebrate to be listed as endangered by the Federal government. Finally, the scientific data used to manage many of these resources, while the best available at the time, has since shown to be inadequate. It is now known, for example, that some rockfish species have life spans approaching 100 years and reproduce at much lower rates than other finfish.

All of these factors have caused California's fisheries management agencies and the State Legislature to seek new solutions for protecting and sustaining resources. The Marine Life Management Act (Stats. 1998, ch. 1052) created a broad programmatic framework for managing fisheries through a variety of conservation measures, including Marine Protected Areas (MPAs). The Marine Life Protection Act (Stats. 1999, ch. 1015) established a programmatic framework for designating such MPAs. AB 2800 (Stats. 2000, ch. 385) enacted the Marine Managed Areas Improvement Act, among other things, to standardize the designation of Marine Managed Areas, which include MPAs, proposed after January 1, 2002. The overriding goal of these acts is to ensure the conservation, sustainable use, and restoration of California's marine resources. Unlike previous laws, which focused on individual species, the acts focus on maintaining the health of marine ecosystems and biodiversity in order to sustain resources.

In conformance with the policies and objectives of these acts the Department of Fish and Game (Department) is pursuing an ecosystem approach to resource management that will protect species as well as critical interactions between species and habitats. The proposed regulations address this approach within the National Oceanic and Atmospheric Administration's (NOAA) Channel Islands National Marine Sanctuary (Sanctuary) by establishing a network of Marine Protected Areas (MPAs). The Sanctuary encompasses 1,252 square nautical miles from the mean high tide line to 6 nautical miles offshore the northern Channel Islands (Anacapa, Santa Cruz, Santa Rosa and San Miguel

Islands) and Santa Barbara Island.

(1) Authority for Commission to Establish Marine Protected Areas (MPAs).

AB 2800 also enacted Fish and Game Code Sections 1590 and 1591, to authorize the Fish and Game Commission (Commission) to designate, delete, or modify State marine recreational management areas established by the Commission for hunting purposes, State marine reserves , and State marine conservation areas, as delineated in Public Resources Code Section 36725(a), and to incorporate by reference the provisions of the Marine Managed Areas Improvement Act.

The State's boundaries extend to a distance of three (3) nautical miles oceanward of the outermost islands adjacent to the mainland. The proposed regulations were developed jointly by the Department and Sanctuary and each alternative includes some MPAs outside State waters. The areas within State waters are addressed in this proposal as an initial phase. For the areas outside State waters, NOAA has indicated its intent to pursue establishment of MPAs under the National Marine Sanctuaries Act. Their goal is to complement the proposed State action by completing the MPA network within the Sanctuary in federal waters (3-200 miles offshore).

The proposed regulations are intended to meet the following goals described in the Marine Life Protection Act [Fish and Game Code section 2853(b)]:

- To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.

- To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.

- To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity.

- To protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value.

- To ensure that California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.

- To ensure that the State's MPAs are designed and managed, to the extent possible, as a network.

As one type of fisheries management tool, MPAs may help support fished populations by providing areas free from fishing mortality. MPAs may also act as insurance for uncertainty in the effectiveness of other management measures such as seasons, size limits, bag limits, quotas, time closures and gear restrictions. MPAs, by their nature, ensure that at least a portion of targeted populations is protected, which helps ensure these populations will be sustained over time. Finally, MPAs allow species to function in an ecosystem less disrupted by the effects of extractive uses.

(A) Ecosystem Based Resource Management Concept.

As indicated above, language in both the Marine Life Management Act (MLMA) of 1998 and the Marine Life Protection Act (MLPA) of 1999 support the concept of ecosystem based resource management. The MLMA specifically states that long term resource health shall not be sacrificed for short term benefits, and that habitat should be maintained, restored, and enhanced [Fish and Game Code Section 7056 (a) and (b)]. The MLPA requires that the Commission adopt a Marine Life Protection Program that in part contains an improved marine reserve component [Fish and Game Code Section 2853 (c)(1)] and protects the natural diversity of marine life and the structure, function, and integrity of marine ecosystems [Fish and Game Code Section 2853 (b)(1)]. This protection may help provide sustainable resources as well as enhance functioning ecosystems that provide benefits to both consumptive and non-consumptive user groups. A growing body of scientific literature reviewing benefits to marine species inside reserves (including increases in size, number, and diversity of species) and to a lesser degree outside reserves (through spillover, larval transport, and protected spawning populations) also supports these concepts (Attachment 1).

In 1998 the Channel Islands Marine Resources Restoration Committee, a local citizens group, brought a proposal for new Channel Islands MPAs to the Commission. In response

to significant public comment on this proposal the Commission approved a joint State and Federal Process proposed by the Department and Sanctuary to consider the establishment of new MPAs in the Sanctuary. As a part of this process the Sanctuary Advisory Council, a constituent group that advises the Sanctuary manager, convened the Marine Reserves Working Group (MRWG). This constituent panel contained 17 members representing State and federal agencies, conservation interests, consumptive recreational and commercial groups, the public at large, and the California Sea Grant program. The MRWG met 24 times between July 1999 and June 2001 to discuss issues surrounding the potential establishment of new MPAs and try to come to consensus on a recommendation.

The Sanctuary Advisory Council also convened a Science Advisory Panel and a Socioeconomic Panel to support the MRWG process. The Science Advisory Panel consisted of 16 members with expertise in MPA science who were selected using the following criteria: (1) local knowledge, (2) no published "agenda" on reserves, (3) breadth of disciplines, (4) geographic and institutional balance, (5) participation in the National Center for Ecological Analysis and Synthesis Reserve Theory Working Group, and (6) time available. The panel reviewed a large body of scientific literature and MPA data.

The Science Advisory Panel's findings support the concept of ecosystem protection through the use of marine reserves (Attachment 1). In order to meet specific ecological and fisheries management goals, they recommended placing at least one marine reserve in each biological region of the Sanctuary; setting aside between 30% and 50% of representative habitats; and including some but not all existing monitoring sites inside reserves.

The Socioeconomic Panel consisted of five members with expertise in fisheries socioeconomics. They collected and synthesized existing studies, records of catch or harvest, and other public information sources, as well as new socioeconomic data. The Socioeconomic Panel used this information to develop impact analyses of each regulatory alternative. This analysis substantiates potential impacts to local and statewide economies and activities (Attachments 2 and 3). These data were also used in attempts to address economic goals for marine reserves. By avoiding high use

areas, or areas of large economic value, various alternatives lessen immediate impacts to consumptive user groups.

While the MRWG did not reach consensus on a specific MPA network alternative, they did agree on a Problem Statement, Goals and Objectives, and implementation recommendations (Attachment 4). The proposed regulation attempts to address these consensus-developed products. The Problem Statement was an important part of the MRWG process and states the following:

The urbanization of southern California has significantly increased the number of people visiting the coastal zone and using its resources. This has increased human demands on the ocean, including commercial and recreational fishing, as well as wildlife viewing and other activities. A burgeoning coastal population has also greatly increased the use of our coastal waters as receiving areas for human, industrial, and agricultural wastes. In addition, new technologies have increased the efficiency, effectiveness, and yield of sport and commercial fisheries. Concurrently there have been wide scale natural phenomena such as El Niño weather patterns, oceanographic regime shifts, and dramatic fluctuations in pinniped populations.

In recognizing the scarcity of many marine organisms relative to past abundance, any of the above factors could play a role. Everyone concerned desires to better understand the effects of the individual factors and their interactions, to reverse or stop trends of resource decline, and to restore the integrity and resilience of impaired ecosystems.

To protect, maintain, restore, and enhance living marine resources, it is necessary to develop new management strategies that encompass an ecosystem perspective and promote collaboration between competing interests. One strategy is to develop reserves where all harvest is prohibited. Reserves provide a precautionary measure against the possible impacts of an expanding human population and management uncertainties, offer education and research opportunities, and provide reference areas to measure non-harvesting impacts.

(B) The Network Concept

Important in the development of the proposed regulation was the consideration that reserves form a network. The network concept calls for connectivity between MPAs through adult movements and larval transport of the Species of Interest (Attachment 5). This approach is consistent with MRWG discussions, the Science Advisory Panel recommendations and the guidance provided in the MLPA [Fish and Game Code Section 2853 (b)(6)].

The proposed regulation establishes a network of MPAs designed to include all representative habitats and major oceanic conditions (Attachment 6). Unique and critical habitats were considered separately to guarantee both representation and protection.

From an ecological perspective, the proposed regulation creates a network of MPAs consistent with the intent of the Legislature, and the goals developed by the MRWG. From an economic and social perspective the proposed regulation attempts to minimize potential short-term losses to consumptive users, a goal of the MRWG.

Allowing access into reserves for such non-consumptive uses as boating, diving, swimming, and kayaking was an important concern of many MRWG members as well as other stakeholders. These uses are consistent with the goals of the Marine Life Protection Act and are not expected to have adverse affects on the marine ecosystem. Except in the case of existing restrictions or potential resource impacts (such as marine mammal breeding and seabird nesting and fledgling areas), public access into MPAs for non-consumptive activities is assured in each alternative.

The ability to transit through or anchor in reserves with catch onboard were also major concerns. If these activities are not allowed a concern for safety in bad weather and for small vessels required to traverse larger distances arises. Since transit through reserves does not directly affect resources these activities are consistent with the intent of the proposed regulations. While anchoring can disturb bottom habitats, most anchorages are in soft bottom areas that are minimally disturbed by anchoring and vessel safety in emergencies and foul weather is critical. Because of this, authority to transit through and anchor in MPAs with catch

onboard, provided that fishing gear is stowed and not in use, is included in each alternative.

(2) Alternatives

A range of alternatives is provided to meet the purposes of the proposed regulation. Each alternative meets at least some of the goals of the MRWG and MLPA, though none to the same extent as the preferred alternative.

(A) The Department's Preferred Alternative.

The Department recommended preferred alternative establishes eleven (11) new State Marine Reserves, one (1) State Marine Conservation Area where only spiny lobster (*Panulirus interruptus*) and pelagic finfish may be taken by recreational anglers, and one (1) State Marine Conservation Area where the commercial and recreational take of spiny lobster and the recreational take of pelagic finfish is allowed. These areas comprise approximately 25% of Sanctuary waters (Attachment 7). The initial State phase proposed here comprises approximately 22% of State waters within the Sanctuary.

The existing regulation (section 27.82(a), Title 14 CCR) defines the cowcod closure areas where the take of certain deepwater rockfish and associated species is prohibited. The proposed regulation alters the boundaries of that area to allow deep water fishing in the vicinity of the northeast corner of Santa Barbara Island.

The Department preferred alternative changes the boundaries of the Cowcod Conservation Area because additional savings for cowcod and associated species are provided by the proposed regulation. The proposed regulation maintains the desired amount of protection for cowcod, which is required by the rebuilding plan for this overfished species, due to the added protection of the no take areas in the Department preferred alternative. Recreational fishing opportunities lost in other areas would be replaced by allowing fishing in deepwater habitats around Santa Barbara Island.

Existing regulations (sections 630(b)(5), (101), and (102), Title 14, CCR) designate three ecological reserves at Anacapa, San Miguel and Santa Barbara Islands,

respectively, and prohibit the take of invertebrates from the mean high tide mark to a water depth of 20 feet in the following areas: 1) on the south side of West Anacapa Island between a line extending 345 magnetic off the National Park Service monument at the southernmost point, adjacent to and excluding Cat Rock, and a line extending 220 magnetic off the National Park Service Monument at the easternmost point near Frenchy's Cove; 2) on the north side of Middle Anacapa Island between a line extending 345 magnetic off the National Park Service Monument at Key Hole Arch Point to a line extending 345 magnetic off the westernmost point of East Anacapa Island at the western boundary of the natural area off Anacapa Island; and 3) on the eastern side of Santa Barbara Island between a line extending 345 magnetic off the northernmost point of Arch Rock and a line extending 165 magnetic off the southernmost point of the island.

These areas were originally established to provide added protection to certain species. In addition, the existing regulations do not meet the goals of the Marine Life Protection Act and Marine Life Management Act. The proposed regulations include the same or similar habitats with increased restrictions and would thus unnecessarily duplicate the existing regulations. Where necessary, existing specific regulations (such as the brown pelican fledgling area on Anacapa Island) are included in the proposed regulation as part of the new MPA network. The proposed regulation repeals the existing ecological reserves at Anacapa, San Miguel, and Santa Barbara Islands in order to simplify the overall network, facilitate understanding of the new regulations, and eliminate unnecessary duplication.

(B) Other Alternatives

Alternative 1 - This alternative establishes nine (9) State Marine Reserves comprising approximately 12% of the Sanctuary waters (Attachment 7). The alternative uses areas agreed to as possible MPA sites by all members of the Marine Reserves Working Group. The initial State phase proposed here comprises approximately 12% of State waters within the Sanctuary. Changes to the ecological reserves on Anacapa, San Miguel and Santa Barbara Islands and the Cowcod Conservation Area are sub-options to this alternative.

Alternative 2 - This alternative establishes eight (8) State Marine Reserves and three (3) State Marine Conservation Areas comprising approximately 14% of the Sanctuary waters (Attachment 7). The alternative uses a reserve system developed by sectors of the Santa Barbara commercial fishing community (Attachment 8). State Marine Conservation Areas in this alternative allow for commercial and recreational take of various species depending on the area. The initial State phase proposed here comprises approximately 12% of State waters within the Sanctuary. Changes to the ecological reserves on Anacapa, San Miguel and Santa Barbara Islands and the Cowcod Conservation Area are sub-options to this alternative. As a second sub-option to Alternative 2 phasing may be used to minimize short-term impacts and require certain criteria to be met (Attachment 8). These criteria may contain requirements for performance of MPAs as well as administrative contingencies.

Alternative 3 - This alternative establishes eight (8) State Marine Reserves comprising approximately 21% of the Sanctuary waters (Attachment 7). The alternative uses a reserve network developed by the Marine Reserves Working Group as an alternative in the planning process. The initial State phase proposed here comprises approximately 15% of State waters within the Sanctuary. Changes to the ecological reserves on Anacapa, San Miguel and Santa Barbara Islands and the Cowcod Conservation Area are sub-options to this alternative.

Alternative 4 - This alternative establishes ten (10) State Marine Reserves comprising approximately 29% of the Sanctuary waters (Attachment 7). This alternative uses the areas agreed to as possible MPA sites by all members of the Marine Reserves Working Group with the addition of areas suggested by some members to complete a network. The initial State phase proposed here comprises approximately 20% of State waters within the Sanctuary. Changes to the ecological reserves on Anacapa, San Miguel and Santa Barbara Islands and the Cowcod Conservation Area are sub-options to this alternative.

Alternative 5 - This alternative establishes nine (9) State Marine Reserves comprising approximately 34% of the Sanctuary Waters (Attachment 7). This alternative uses a network of reserves developed in the Marine Reserves

Working Group process and altered to reduce the overall area to 34%. The initial State phase proposed here comprises approximately 23% of State waters within the Sanctuary. Changes to the ecological reserves on Anacapa, San Miguel and Santa Barbara Islands and the Cowcod Conservation Area are sub-options to this alternative.

Alternative 6 - This alternative defers decision on MPAs at the Channel Islands to the Marine Life Protection Act process. If adopted, this alternative suggests combining discussion on a reserve network at the Channel Islands with discussions for the rest of the State under the programmatic framework established by the Marine Life Protection Act. This alternative would have no immediate effect on existing regulations.

(b) Authority and Reference Sections from Fish and Game Code and Public Resources Code for Regulation.

Authority: Sections 200, 203.1, 205(c), 219, 220, 1590, 1591 and 2860 Fish and Game Code.

Reference: Sections 200, 203.1, 205(c), 219 and 220, Fish and Game Code. Sections 36725(a) and 36725(e), Public Resources Code.

(c) Specific Technology or Equipment Required by Regulatory Change.

None.

(d) Identification of Reports or Documents Supporting Regulation Change.

Attachment 1: Scientific Advisory Panel Recommendation

Attachment 2: Socioeconomic Data Collection Methods, Overview, Analysis methods, and Data Distributions

Attachment 3: Socioeconomic Analyses of Alternatives

Attachment 4: A Recommendation for Marine Protected Areas in the Channel Islands National Marine Sanctuary

Attachment 5: Species of Interest

Attachment 6: Ecological Analysis of Alternatives

Attachment 7: Maps of Alternatives

Attachment 8: The Proactive Fishermen's Plan for Marine Protected Areas

PUBLIC DISCUSSIONS OF PROPOSED REGULATIONS PRIOR TO NOTICE OF PUBLICATION

Meeting Dates	Location	Major Topics
Dec 6, 2001	Long Beach, CA	Fish and Game Commission meeting with public comment on proposed alternatives
Oct 4, 2001	San Diego, CA	Fish and Game Commission meeting with public comment on proposed alternatives
Aug 24, 2001	Santa Barbara, CA	Presented Department preferred alternative to Fish and Game Commission and received public comments
Jun 19, 2001	Santa Barbara, CA	Sanctuary Advisory Council deliberation – forwarded advice to Sanctuary Manager
May 23, 2001	Santa Barbara, CA	Transmission of MRWG work to Sanctuary Advisory Council
May 23, 2001	Santa Barbara, CA	Public Forum - Approximately 300 attendance
May 16, 2001	Santa Barbara, CA	Review of preferred option and recommendation to Sanctuary Advisory Council
Apr 18, 2001	Santa Barbara, CA	Developing a Preferred Reserve network option
Mar 21, 2001	Santa Barbara, CA	Presentations from Science and Economic Panels
Mar 21, 2001	Santa Barbara, CA	Public Forum – Approximately 300 in attendance
Feb 21, 2001	Santa Barbara, CA	Developed Marine Reserve Scenarios
Feb 15, 2001	Santa Barbara, CA	Dealt with Unresolved Issues
Jan 12, 2001	Santa Barbara, CA	Discussion with Science and Socioeconomic Panels
Dec 14, 2000	Santa Barbara, CA	Closure on Goals and Objectives, developed questions for the Science Advisory and Socio-economic Panels
Nov 15, 2000	Santa Barbara, CA	Worked on Goals and Objectives
Oct 18, 2000	Santa Barbara, CA	Worked on Goals and objectives
Oct 12, 2000	Goleta, CA	Public Forum – Approximately 300 in attendance
Sep 26-27, 2000	Santa Barbara, CA	Received Socio-economic and Science panel data and recommendations / Crafted Preliminary reserve scenarios
Aug 22, 2000	Santa Barbara, CA	Discussed data, worked on Goals and Objectives
Jul 18, 2000	Santa Barbara, CA	Re-worked Goals and objectives, Science panel progress, refined overall process
Jun 22, 2000	Santa Barbara, CA	Adopted Goals and Objectives / Discussed data
Jun 8, 2000	Santa Barbara, CA	Worked on Goals and Objectives
Apr 13, 2000	Santa Barbara, CA	Data discussion, set future meeting dates
Mar 16, 2000	Santa Barbara, CA	Task groups, Goals and Objectives
Feb 23, 2000	Santa Barbara, CA	Response to Science Panel, worked on goals and objectives

Meeting Dates	Location	Major Topics
Jan 20, 2000	Oxnard, CA	Public Forum – Approximately 200 in attendance
Jan 10-11, 2000	Santa Barbara, CA	Joint meeting with Science and Socio economic panels, crafted goals & objectives
Dec 9, 1999	Santa Barbara, CA	Presentation from MWRG members regarding major issues and concerns
Nov 10, 1999	Santa Barbara, CA	Discussed revisions and finalized ground rules
Oct 21, 1999	Santa Barbara, CA	Adopted draft ground rules
Jul 7, 1999	Santa Barbara, CA	Introduction to MWRG process

IV. Description of Reasonable Alternatives to Regulatory Action:

(a) Alternatives to Regulation Change:

A proposal was made to include an alternative representing approximately 39% of the Channel Islands National Marine Sanctuary area. This alternative included 9 State Marine Reserves, each extending to the seaward boundary of the Channel Islands National Marine Sanctuary. The alternative was rejected for consideration due to high initial economic impacts and its similarity to Alternative 5.

An initial proposal was made to the Commission to close approximately 23% of the Channel Islands, including San Nicolas Island. This proposal included 6 State Marine Reserves extending from the shoreline to a distance of 1 nautical mile offshore. This alternative was rejected due to its similarity in protection to the preferred alternative and Alternative 3.

A proposal was made to complete the State waters portion of the MPA network in a single phase. In this alternative, reserves proposed to extend into federal waters would initially be bounded by the three nautical mile offshore boundary, rather than a line of latitude or longitude. This alternative would change the initial economics impacts (Attachment 3), but would negate the need for a second regulatory process in State waters to connect to the Federal waters phase. This proposal is provided as a sub-alternative to each alternative discussed in section III(a).

(b) No Change Alternative:

The no change alternative would continue existing resource and fisheries management measures such as bag, season, and size limits as the sole protection of marine resources. The no change alternative would leave existing MPAs in the Channel Islands National Marine Sanctuary unchanged. This would provide no additional protection to resources or ecosystem-based protection of entire habitats. The no change alternative would not address the problem statement developed by consensus of the

Marine Reserves Working Group, nor the goals of the Marine Life Protection Act.

(c) Consideration of Alternatives:

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulation.

V. Mitigation Measures Required by Regulatory Action:

The proposed regulatory action would have no negative impact on the environment; therefore, no mitigation measures are needed. MPAs pose a potential for redirection of fishing effort into open areas. This potential impact is reduced by specific decisions on areas to include and through careful examination of socioeconomic data (Attachment 2). These data provide a baseline for estimating which areas are currently used both in economic value and person days of activity. By avoiding high use areas (with large numbers of person days), or areas of large economic value, various alternatives lessen immediate impacts to consumptive user groups. In addition, while multiple users access the same areas on an annual basis, on a daily basis there is less congestion. Various fisheries management plans, when completed and implemented, will also help address the issue of overall capacity in a variety of affected fisheries. Specifically the nearshore and market squid fishery management plans will contain management options to limit effort and are likely to significantly reduce fleet capacity. These plans are scheduled for adoption in 2002.

VI. Impact of Regulatory Action:

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

Each alternative may have negative short-term impacts on commercial and recreational fishing businesses. The impacts presented here do not represent a complete socioeconomic impact analysis, but rather what is generally referred to as a Step 1 analysis or “maximum potential loss.” This analysis simply sums up the activity that currently takes place within a given alternative and translates these activities into corresponding economic values. Maximum potential loss does not take into account

other management strategies/regulations and human behavioral changes, such as moving to other areas or changing fishing gear, that may mitigate, offset, or make matters better or worse. In addition, maximum potential loss does not consider possible future benefits. Comparisons of maximum potential loss to commercial fish landings, income derived from recreational fisheries, and maximum impact to non-consumptive user derived income were computed for each alternative (Tables 1, 2 and 3), as well as expansions of the direct impacts of commercial fish landings to local economies (Table 4). It is important to note that non-consumptive users are considered beneficiaries of MPAs and thus impact to non-consumptive income is positive.

These calculations represent the loss and value in the initial State water phase of each alternative. Full comparisons of maximum potential loss and values for both State and federal phases have also been computed (Attachment 3).

The potential impacts of the Department's recommended preferred alternative are detailed here and compared to the other alternatives. The maximum potential loss to commercial fish landings would vary between 1.7% and 16.5% of annual ex-vessel value generated in Sanctuary waters in the Department preferred alternative (Table 1). This reflects a combined maximum potential annual ex-vessel loss of $3,222,810 (1996 - 1999 average ex-vessel value) to commercial fisheries (Table 1). This loss can be expanded to include losses in total income including processors, fish buyers and other related business. This maximum potential loss in income from commercial activities to all counties is estimated at $9,910,520 per year (Table 4).

The maximum potential loss to income derived from recreational fishing varies between 9.9% and 26.2% annually in the Department preferred alternative (Table 2). This represents a maximum potential loss in income of $5,720,077 generated by recreational fishing annually (Table 2).

Maximum potential impact to income derived from non-consumptive activities (diving, whale watching, kayaking, sightseeing, and sailing) ranges between 10.8% and 29.1% annually in the Department preferred alternative (Table 3). This represents a maximum potential annual income of $1,385,756 generated by non-consumptive activities annually (Table 3). Non-consumptive income is that supported by existing activities. This income is expected to increase over time by some unknown amount based on expected improvements in site quality.

In the long term, the potential negative impacts are expected to be balanced by the positive impacts of sustainable fisheries, non-consumptive benefits, and ecosystem function in the reserve areas. In

addition potential benefits may be realized through adult fish spillover to areas adjacent marine reserves and larval transport to distant fished sites.

Table 1: MAXIMUM POTENTIAL LOSS IN ANNUAL EX-VESSEL VALUE TO COMMERCIAL FISHERIES BY SPECIES GROUP[1] (1996-1999 AVERAGE VALUES) FOR THE INITIAL STATE WATERS PHASE

Species Group	Preferred Alternative		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%
Squid	$1,643,642	12.60	$636,109	4.88	$695,877	5.33	$670,263	5.14	$1,686,334	12.93	$1,985,178	15.22
Kelp	$332,794	5.55	$265,568	4.43	$332,794	5.55	$298,241	4.98	$467,886	7.81	$730,650	12.20
Urchins	$830,464	15.77	$735,214	13.96	$704,761	13.39	$753,956	14.32	$1,045,387	19.85	$1,338,737	25.43
Spiny Lobster	$147,867	16.04	$77,829	8.44	$82,159	8.91	$93,605	10.15	$145,269	15.75	$199,036	21.59
Prawn	$21,436	3.05	$25,602	3.64	$22,988	3.27	$25,602	3.64	$36,290	5.16	$26,092	3.71
Rockfish	$70,994	12.92	$70,862	12.90	$64,985	11.83	$71,256	12.97	$92,693	16.87	$117,331	21.36
Crab	$50,101	14.58	$26,157	7.61	$26,837	7.81	$26,104	7.60	$48,222	14.03	$51,087	14.87
Tuna	$5,081	1.66	$1,765	0.58	$2,618	0.86	$1,956	0.64	$3,415	1.12	$5,243	1.72
Wetfish	$22,408	7.43	$3,641	1.21	$6,304	2.09	$3,725	1.24	$10,799	3.58	$25,986	8.62
CA Sheephead	$38,326	16.24	$23,432	9.93	$43,966	18.64	$25,582	10.84	$44,558	18.89	$62,802	26.62
Flatfishes	$21,677	11.79	$7,987	4.34	$19,177	10.43	$7,987	4.34	$18,371	9.99	$25,558	13.90
Sea Cucumber	$27,731	16.54	$21,406	12.76	$28,667	17.09	$23,361	13.93	$31,951	19.05	$43,477	25.93
Sculpin & Bass	$5,644	9.36	$2,797	4.64	$4,990	8.27	$2,933	4.86	$4,642	7.69	$6,633	11.00
Shark	$4,645	13.37	$2,680	7.71	$1,539	4.43	$2,528	7.27	$4,799	13.81	$5,973	17.19
Total	$3,222,810	11.46	$1,901,049	6.76	$2,037,662	7.25	$2,007,099	7.14	$3,640,616	12.95	$4,623,782	16.45

[1] Species groups are defined in Attachment 2.

TABLE 2: MAXIMUM POTENTIAL LOSS IN ANNUAL INCOME GENERATED BY CONSUMPTIVE RECREATIONAL ACTIVITIES FOR THE INITIAL STATE WATERS PHASE

Activity Type	Preferred Alternative		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
	Income	%	Income	%	Income	%	Income	%	Income	%	Income	%
Charter/Party Boat Fishing	$2,810,774	9.9	$1,775,955	6.2	$2,581,027	9.1	$1,796,516	6.3	$2,846,229	10.0	$3,516,847	12.4
Charter/Party Boat Diving	$661,153	18.3	$231,618	6.4	$753,710	20.8	$250,358	6.9	$621,212	17.1	$893,752	24.7
Private Boat Fishing	$1,801,449	13.0	$930,825	6.7	$1,714,098	12.4	$970,650	7.0	$1,913,470	13.8	$2,305,631	16.6
Private Boat Diving	$446,701	26.2	$73,102	4.3	$448,020	26.3	$78,281	4.6	$411,048	24.1	$522,969	30.7
Total	$5,720,077	12.0	$3,011,500	6.3	$5,496,855	11.5	$3,095,804	6.5	$5,791,959	12.2	$7,239,199	15.2

TABLE 3: MAXIMUM POTENTIAL IMPACT[1] IN ANNUAL INCOME GENERATED BY NON-CONSUMPTIVE ACTIVITIES FOR THE INITIAL STATE WATERS PHASE

	Preferred Alternative		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
Activity Type	Income	%	Income	%	Income	%	Income	%	Income	%	Income	%
Whale Watching	$793,694	15.2	$253,197	4.9	$884,605	17.0	$216,278	4.1	$849,942	16.3	$928,341	17.8
Non-Consumptive Diving	$409,694	18.2	$144,195	6.4	$399,787	17.8	$147,854	6.6	$390,537	17.4	$483,254	21.5
Sailing	$88,420	10.8	$35,421	4.3	$95,631	11.7	$42,604	5.2	$99,626	12.2	$119,687	14.7
Kayaking / Island Sightseeing	$93,949	29.1	$33,288	10.3	$34,391	10.6	$35,759	11.1	$45,251	14.0	$100,966	31.2
Total	$1,385,756	16.1	$466,101	5.4	$1,414,414	16.4	$442,496	5.1	$1,385,357	16.1	$1,632,248	19.0

[1]Non-consumptive users are considered beneficiaries of MPAs. Therefore impact, in this case, is positive.

TABLE 4: MAXIMUM POTENTIAL LOSS IN ANNUAL INCOME GENERATED BY COMMERCIAL FISHERIES BY COUNTY[1] FOR THE INITIAL STATE WATERS PHASE

County	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
	Income	Income	Income	Income	Income	Income
Monterey	$1,195,421	$462,638	$506,109	$487,478	$1,226,462	$1,443,819
San Luis Obispo	$14,664	$13,961	$12,964	$14,061	$18,827	$23,768
Santa Barbara	$2,060,862	$1,659,512	$1,621,738	$1,725,409	$2,470,534	$3,153,709
Ventura	$4,957,217	$2,049,847	$2,268,893	$2,155,876	$5,109,331	$6,088,433
Los Angeles	$1,147,229	$448,130	$497,162	$472,303	$1,166,533	$1,390,029
Orange	$17	$6	$8	$7	$14	$19
San Diego	$535,111	$427,870	$533,492	$479,618	$750,738	$1,168,698
All Affected Counties	$9,910,520	$5,061,964	$5,440,366	$5,334,752	$10,742,440	$13,268,476

[1]Counties listed are those where fish are landed and/or processed.

(b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

Each alternative has potential impacts on the creation and elimination of jobs related to commercial and recreational fishing and non-consumptive activities. As with economic impacts, the impacts listed here are a Step 1 or "maximum potential loss" analysis. This analysis simply sums up the activity that currently takes place within a given alternative and translates these activities into corresponding economic values. Maximum potential loss does not take into account other management strategies/regulations and human behavioral changes that may mitigate, offset, or make matters better or worse. In addition, maximum potential loss does not consider possible future benefits.

The maximum potential numbers of jobs lost relating to commercial and recreational fishing activities is estimated to be 435 and the existing jobs supported by non-consumptive activities is estimated to be 37 under the preferred alternative. This represents the potential elimination of jobs in the initial State water phase. The range in job losses for the other alternatives is from 224 (Alternative 1) to 564 (Alternative 5). The range of jobs supported by non-consumptive activities for the other alternatives is from 12 (Alternative 3) to 44 (Alternative 5). Non-consumptive jobs are the current jobs supported by existing activities. These jobs would be expected to increase over time by some unknown factor based on expected improvements in site quality.

TABLE 5: MAXIMUM POTENTIAL NUMBERS OF JOBS[1] ELIMINATED OR SUPPORTED BY JOB SOURCE FOR THE INITIAL STATE WATERS PHASE

	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Source	Jobs	Jobs	Jobs	Jobs	Jobs	Jobs
Commercial Industry jobs eliminated	289	147	156	154	311	380
Consumptive Recreational Industry jobs eliminated	146	77	140	79	147	184
Non-Consumptive jobs[2]	37	13	38	12	38	44

[1] Jobs are listed in total employment (direct and indirect).

[2] Non-Consumptive Jobs are the current jobs supported by existing activities. These jobs would be expected to increase over time by some unknown factor based on expected improvements in site quality.

(c) Cost Impacts on a Representative Private Person or Business:

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

(d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

Any additional costs to State agencies for enforcement, monitoring, and management of MPAs are difficult to estimate and depend on not only the impacts of the proposed regulation but other regulations and processes as well. Current cooperative efforts with the Sanctuary and Channel Islands National Park provide funding for some existing costs and are expected to increase with the adoption of these regulations. While changes in enforcement, monitoring, and management may occur, these changes are not expected to create significant changes to funding or costs to State agencies.

Enforcement Efforts

The Department's Marine Region currently deploys 57 law enforcement officers statewide. In the Santa Barbara and Ventura county area 3 lieutenants and 4 wardens/boarding officers positions are funded and would form the baseline of MPA enforcement. One 54 ft (16.5 m) patrol boat will be stationed in Ventura in the coming year. A second 54 ft patrol boat is presently stationed in Dana Point and assists with enforcement in the Channel Islands. Marine Region wardens currently enforce a range of regulations around the Channel Islands. The proposed regulations may change the specific enforcement duties, but not the level of effort.

The Sanctuary contributes funds directly to the Department to enhance enforcement capabilities in Sanctuary waters. This funding is estimated to continue at a rate of $30,000 per year. In addition the Sanctuary conducts aerial surveys which add to the enforcement coverage.

The Channel Islands National Park employs six full time rangers stationed on the islands. These rangers are deputized to enforce all federal, state, and county laws and regulations within one nautical mile of the shoreline. The National Park has three patrol boats stationed at the islands and primarily used for the enforcement of marine laws and regulations as well as public safety.

Research and Monitoring Efforts

Fishery-dependent information refers to data collected from fishing harvest, either from a commercial or recreational fishery. Fishery-dependent monitoring and data collection are concerned with activities that remove fish from the resource (extractive uses). These assessments will continue regardless of MPA establishment.

The Department has assessed a variety of fisheries and species through independent methods including dive, trawl, hydroacoustic, and other surveys. These efforts are expected to increase with the establishment of MPAs, however much of this may be completed by grant funded university and other researchers. The proposed regulations do not specifically require increases in Department costs.

The Sanctuary conducts a variety of ongoing monitoring programs at the Channel Islands. These include a collaborative research program, which links fishermen with scientists, aerial monitoring, habitat mapping, seabird research, kelp forest monitoring (in conjunction with the National Park), oceanographic sampling, intertidal monitoring (in conjunction with the National Park), and acoustic tracking of giant seabass. These activities are expected to continue with additional funds designated towards monitoring new MPAs.

The Channel Islands National Park also conducts a variety of monitoring programs. These include seabird monitoring, rocky intertidal monitoring, kelp forest monitoring, and ecological research. The continuation of these long-term programs not only provides a baseline of data on resource status but will allow examinations of the effectiveness of MPAs. The proposed network of reserves contains existing monitoring both within and outside MPAs.

(e) Nondiscretionary Costs/Savings to Local Agencies: None

(f) Programs mandated on Local Agencies or School Districts: None

(g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4: None

(h) Effect on Housing Costs: None

Informative Digest / Policy Statement Overview

The following alternatives establish new Marine Protected Areas (MPAs) in the area within NOAA's Channel Islands National Marine Sanctuary. This area includes the northern Channel Islands (Anacapa, Santa Cruz, Santa Rosa, and San Miguel) and Santa Barbara Island from the shoreline to a distance of 6 nautical miles offshore. Each alternative includes some areas outside state waters (from 0 to 3 nautical miles offshore). The areas within state waters are addressed in this proposal as an initial phase. For the areas outside state waters, NOAA has indicated its intent to pursue establishment of marine reserves under the National Marine Sanctuaries Act. The goal is to complement the proposed State action by completing the marine reserve network in the Sanctuary. These new areas constitute the addition of a new Section 632 to Title 14, California Code of Regulations.

The Department's recommended preferred alternative establishes eleven (11) new State Marine Reserves where it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, except under a permit or specific authorization from the Commission for research, restoration, or monitoring purposes, one (1) State Marine Conservation Area where only the recreational take of spiny lobster (*Panulirus interruptus*) and pelagic finfish is allowed, and one (1) State Marine Conservation Area where the commercial and recreational take of spiny lobster and the recreational take of pelagic finfish is allowed. These areas comprise approximately 25% of the waters within the Channel Islands National Marine Sanctuary. For the purposes of these regulations, pelagic finfish is defined as: anchovy, barracuda, blue shark, dolphinfish, herring, mackerels, mako shark, marlin*, salmon, sardine, swordfish, thresher shark, tunas, and yellowtail (*marlin is not allowed for commercial take).

Five alternatives to the recommended preferred alternative establish between 7 and 11 State Marine Reserves covering a range of 12% to 34% of the Channel Islands National Marine Sanctuary. The alternatives vary in specific locations and sizes of MPAs. An alternative to delay decision on the matter to the Marine Life Protection Act process is provided along with a no change alternative.

In addition, the proposed regulations remove three existing invertebrate closures on Anacapa and Santa Barbara islands found in sections 630 (b)(5)(C) and 630 (b)(102)(B), Title 14, California Code of Regulations, and three ecological reserves at Anacapa, San Miguel, and Santa Barbara islands. The proposed regulations would re-designate these under the new MPA Section (632, Title 14, California Code of Regulations). Existing regulations on activities in the ecological reserves other than the invertebrate closures would be maintained in the new designations. The proposed regulations also alter the boundaries of the Cowcod Conservation Area around Santa Barbara Island found in Section 27.82(a), Title 14, California Code of Regulations.

Should none of the above MPA alternatives be chosen, the existing MPAs would remain unchanged. At present, this includes the no-take area and two invertebrate closures at Anacapa Island, an invertebrate closure at Santa Barbara Island, and

seasonal marine mammal and sea bird protective closures at San Miguel, Anacapa, and Santa Barbara islands.